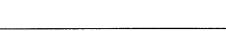


Healthy Maine Partnerships

- Healthy Maine Partnerships cover 99.7% of Maine's population.
- HMPs work to assist local communities make physical activity, healthy eating, and living a tobacco-free life easier to achieve.
- Each HMP also has a School Health Coordinator in at least one school district; 20% of Maine schools are covered, reaching 40% of school-aged children statewide.

1175/2017



Healthy Maine Partnerships

- Braid funds available, including; Maine CDC FHM, USDA, US CDC, OSA Block Grant, and OSA FHM.
- Coordinate through state level programs the expectations for the 27 local HMP coalitions and affiliated schools, leveraging similar types of work.

11/3/2011



What are HMPs?

"Healthy Maine Partnerships is established to provide appropriate essential public health services at the local level, including coordinated community-based public health promotion, active community engagement in local, district and state public health priorities and standardized community-based health assessment that inform and link to district-wide and statewide public health systems activities."

11/2/2014

1 3



Goals for HMPs:

- Ensure that Maine has the lowest smoking rates in the nation.
- Prevent the development and progression of obesity, substance abuse, and chronic disease related to or affected by tobacco use.
- Optimize the capacity of Maine's cities, towns and schools to provide health promotion, prevention, health education and self-management of health.
- Develop and strengthen local capacity to deliver essential public health services across the State of Maine.

July 1, 2011 - June 30, 2016

5.

11/7/5m)



Tobacco

- Every year, tobacco is responsible for about 1/4 of all deaths in Maine
- For every person who dies from tobacco use, another 20 suffer with at least one serious tobacco-related illness.
- Over 40% of children have at least one smoking parent.



Tobacco Use Prevention, Cessation and Treatment

- FHM funds major portions of the Partnership For A Tobacco-Free Maine program carried out by staff and contracts; including 2 FTE, youth prevention, tobacco cessation and treatment, and preventing exposure to secondhand smoke.
- PTM does not receive any General Funds.
- Federal funds from US CDC pays for 6 of 8 program staff as well as some programmatic work
- Under US CDC ARRA, the program received funds till March 2012 to enhance HelpLine outreach and under US CDC ACA, funds to understand MaineCare members' motivation to quit smoking
- FDA funds enforcement of FDA tobacco retail regulations.

1.-12/01



Obesity

- Two-thirds of Maine adults are overweight or obese
- Unhealthy diet and physical inactivity is the second leading preventable cause of death in Maine, second only to tobacco.
- Obesity, poor nutrition and physical inactivity are contributing causes to multiple chronic diseases, including diabetes, cancer, and heart disease.

11/5/2011

57



Obesity

- FHM supports 3 staff in the Physical Activity, Nutrition, Healthy Weight Program and a contract with the Harvard Prevention Research Center for education and training to address childhood obesity
- USDA Supplemental Nutrition Assistance Program funds support education and information on ways to be more physically active to clients and makes connections to local Healthy Maine Partnerships and food pantries
- US CDC ARRA funds end in March 2012 and supported work to address licensed child care settings and college menu labeling as well as work in the Cumberland District

11/3/2011

58



Oral Health



- FHM funds major portions of the oral health program.
 - School Oral Health funds to schools based on community risk guidelines for classroom education, fluoride mouth rinse, and dental sealant application
 - Dental Services Subsidy dental care provided at nonprofit clinics
 - Donated Dental Services connects patients to dental offices that donate their services free
- State General and Maternal Health Block grant supports program administration and some of the School Oral Health Program component.
- Federal CDC funds support personnel, including 2.0 FTE to administer the program and 0.5 FTE to work with communities on quality assurance in water fluoridation.
- Federal HRSA funds support dental workforce development

3113 TO F



School-Based Health Care

- How FHM supplements this work
 - Supplements MCH block grant match
 - Expand the number of SBHC from 11 to 20
 - SBHC expands impact of HMP, PTM and PAN and Healthy Weight work



11:27 0.1

ьи



Family Planning Services

- · How FHM supplements this work
 - Maine CDC and OCFS combine purchase of FP clinical services
 - Improves pregnancy planning and spacing
 - Prevention activities go beyond clinical services
 - Evidence-based programs
 - Personal Responsibility Education Program



12 1977 3

n1



Immunization -

- Annual deaths from vaccine-preventable illnesses
- Prevention of hospitalizations and deaths
- Vulnerable populations include long-term care settings
- Improvement in the proportion of older Mainers having an annual flu shot
- Improvement in the proportion of older Mainers having a pneumonia shot

11/3/2011

5.1



Immunization

- All recommended vaccines for eligible children purchased through Federal Vaccines for Children Program
- General Fun allocation buys school required vaccines
- January 2012 starts vaccine assessment by health plans

11/3/2011

33

Summary and Discussion

11/3/2011

50



Testimony of the Maine Public Health Association Commission to Study Allocations of the Fund for a Healthy Maine

Senator McCormick, Representative Sanderson and members of the Commission to Study the Allocations of the Fund for a Healthy Maine, I am Tina Pettingill, Executive Director of the Maine Public Health Association, an organization of more than 350 members committed to creating an environment which sustains and improves the health and well-being of Maine residents. Our diverse membership has a common interest in the promotion and protection of the public's health. I am here today to share our perspective on the importance of reviewing the allocations of the Fund for a Healthy Maine and ensuring that these limited resources are put toward best practice, evidence-based prevention and health promotion efforts. I should note that MPHA does not receive any funds from the Fund for a Healthy Maine.

As you begin your work I would like to draw your attention to a common definition of prevention that is used in the field of Public Health. While we all understand what the word means, I think it helps to flesh this out a little bit. In the field of public health there are considered to be three levels of prevention.

Primary Prevention – focuses on preventing risks for disease, such as preventing smoking, preventing physical inactivity, and preventing poor nutrition;

Secondary Prevention – focuses on reducing existing risks for disease, such as reducing smoking, increasing physical activity, and improving nutrition;

Tertiary Prevention — focuses on reducing the impact of diagnosed disease (or a health concern such as teenage pregnancy), for example: assuring treatment, reducing smoking, improving nutrition and physical activity for those with diagnosed cardiac disease.

Please note that in the three levels of prevention that I mentioned, you will not see mention of clinical medical treatments. We feel that this is an important distinction to make. With budget shortfalls, it may be tempting to sweep Tobacco Master Settlement dollars into Medicaid accounts with the justification of treating chronic diseases related to

MPHA 2010/2011 Board of Directors

L.isa Harvey-McPherson RN, MBA, MPPM President

Denise Bisaillon, EdD Vice-President

Bethany Sanborn MPH, MCHES Past-President

Anita Ruff, MPH, CHES Treasurer

Mark Griswold, M.Sc. Secretary

Emily Rines, MPH

Kala Ladenheim, PhD, MSPH

Angela Westhoff, MA

Kevin Lewis, MPP

Kate Yerxa, MS, RD

Cheryl Tucker

Dennise Whitley, MHA

Stephen Sears, MD, MPH

Kathleen Cullinen, PhD, RD, LD

Jamie Comstock

Bill Flagg

Edmund Claxton, MD Physician Advisor

Tina Pettingill, MPH Exeutive Director

11 Parkwood Drive, Augusta, ME 04330 www.mainepublichealth.org tobacco use. But this is exactly the wrong thing to do and will only help to perpetuate the ever spiraling costs of healthcare.

Prevention is the cornerstone of public health, and prevention works. Whether it is helping smokers quit, giving kids a healthy start, supporting new parents, helping families get active or teaching students about healthy choices, prevention provides the foundation for a healthier state, fewer health care costs, and greater workforce productivity. Prevention works so well that a recent report from the Trust for America's Health and the Robert Wood Johnson Foundation, demonstrates that for every \$1 spent on prevention in Maine, the return on investment is \$7.50 - the best rate of return for any state in the country. ii

Maine has the best return on investment because we have wisely invested in proven community-based programs through the Fund for a Healthy Maine (FHM). Yet, as important and as effective as prevention is, Maine does not provide a lot of resources to these efforts. The FHM is Maine's primary source for prevention funding. In the FY 10-11 biennium, the FHM accounted for only 1.54% of the total budget allocations and prevention funding in this state accounts for only .7% of total health care expenditures (public and private).

MPHA believes strongly that whatever the conclusion of this Commission's process is, the results should be based in science, that any recommended use of FHM dollars remain true to the public health definition of prevention and that programs funded are based on best practices with measureable outcomes.

MPHA would also like to take the opportunity to offer ourselves as a resource for this committee as you move forward and we would be happy to answer any questions now or at any time in the future.

You can contact me at anytime at 730.1040 or at mainepha@gmail.com.

Thank you.

¹ Office of Program Evaluation and Government Accountability (2009) Fund For A Healthy Maine Programs: A Comparison of Maine's Allocations to Other States and a Summary of Programs.

ii Trust for America's Health. (2008). Prevention for a Healthier America: Investments in Disease Prevention Yield Significant Savings, Stronger Communities.



The Friends of the Fund for a Healthy Maine

Testimony of Friends of the Fund for a Healthy Maine To the Commission to Study the Allocations of the Fund for a Healthy Maine

The Fund for a Healthy Maine was created by the Maine Legislature in 1999 to receive and disburse Maine's annual tobacco settlement payments to eight categories of health programming:

- · Smoking prevention, cessation and control activities, including, but not limited to, reducing smoking among the children of the State;
- · Prenatal and young children's care, including home visits and support for parents of children from birth to 6 years of age;
- · Child care for children up to 15 years of age, including after-school care;
- · Health care for children and adults, maximizing to the extent possible federal matching funds;
- · Prescription drugs for adults who are elderly or disabled, maximizing to the extent possible federal matching funds;
- Dental and oral health care to low-income persons who lack adequate dental coverage;
- · Substance abuse prevention and treatment: and
- · Comprehensive school health programs, including school-based health centers.

Senator McCormick, Representative Sanderson and members of the Commission to Study the Allocations of the Fund for a Healthy Maine, I am Becky Smith here today representing the Friends of the Fund for a Healthy Maine, a statewide coalition of more than 150 organizations ranging from hospitals to businesses to nonprofit agencies and towns.

The Fund for a Healthy Maine (FHM) was created for the primary purpose of preventing chronic disease, promoting good health and reducing future health costs. Since then, Maine lawmakers have generally attempted to honor this special purpose as they have recognized what can reasonably be considered a once-in-a-lifetime opportunity.

Let's face it, we all want healthy kids, good jobs, lower health costs, and strong communities. That's something we can all agree on and it's why the FHM has never been a partisan issue.

We have the Fund for a Healthy Maine because Maine people got sick and died. They weren't all Republicans and they weren't all Democrats. They didn't all live in Gardiner, or Eastport, or Berwick. They were from all walks of life and every corner of Maine and the settlement is their legacy to all of us. It should be used in a comprehensive way to help <u>all</u> Mainers live a happy and healthy life and to prevent this tragedy from happening again.

The FHM is an investment in Maine's future:

- > it improves the health of our family, friends, and neighbors;
- > it lowers health costs for businesses and families;
- > it prepares kids be better learners;

- > it enhances our business climate—most employers want to be where people are healthy and productive;
- > it improves our quality of life and strengthens our communities;
- > it gives us a positive return on investment;
- it's no burden on taxpayers.

And it's the right thing to do with this special funding stream.

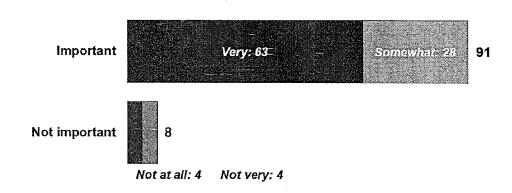
The Fund for a Healthy Maine is a unique opportunity to prevent disease, promote good health, and reduce costs for everyone. Ninety-one percent of Maine voters, our 100+ members and more than 150 businesses believe in the Fund's intended use—to set Maine on the course of a healthy future.

The Friends of the Fund for a Healthy Maine understand that public health is not a static field, and that a review of the Fund's existing allocations is appropriate to ensure we are addressing the state's current public health priorities. That is why we supported the creation of this Commission and why we are here today to offer our assistance.

Thank you.

Voters Feel Tobacco Settlement Money Should Be Devoted To The 'Fund For A Healthy Maine'

Maine currently receives millions of dollars per year from the tobacco industry, as part of the 1998 tobacco lawsuit settlement. This money is dedicated to the Fund for a Healthy Maine. How important is it to you personally that Maine's tobacco settlement dollars be used only to prevent chronic disease and promote the good health of Maine people today, and reduce future health costs for businesses and families?



Kiley & Company Opinion Research Consultants

Remainder not sure

An Open Letter to the Maine Legislature

As Maine businesses, we are all feeling the effects of the recent economic downturn. Many of us have found it more difficult to maintain our staffing levels, pay the bills, invest in new equipment, and grow our companies to their highest potential.

Though many factors have led to the financial challenges we are all facing, one of the biggest burdens is the high cost of health care and health insurance. In 2006, Maine employers paid an average of \$8,700 per year for a family insurance policy. While certainly a high price at the time, that same policy in 2012 is expected to exceed \$15,000. This trajectory of costs is not sustainable for the average business in Maine. In last year's *Making Maine Work* report from the Maine Chamber of Commerce, Maine business leaders identified the cost of health insurance as the number one priority for the Governor and Legislature to address this year.

We know that healthy families are the key to a lowering health care costs and sustaining a strong economy. When people are healthy, children do better in school, workers are more productive, and businesses can add jobs because health costs are lower. This is why it's more important than ever that we continue to use the Fund for a Healthy Maine for what it was intended to do: promote good health and prevent costly disease.

Dismantling the Fund for a Healthy Maine takes us in the wrong direction. Our economic recovery depends on bringing down the cost of health care, and that's what the Fund is designed to do. Keeping it working is our best opportunity to support healthy families, lower costs for businesses, and help young people stay in Maine. Please do everything you can to protect the Fund for a Healthy Maine and keep it working as it was intended — creating opportunities for better health and lower costs for everyone.

Sincerely,

(See list of more than 150 businesses on next page)

Academy Dental Adventure Bound

American Legion Post 133 Androscoggin County Chamber

Art's Marine

Aware Center for Early Intervention

Axiom Technologies

Baseline US Basic Landscape Care Belfast Cooperative Belfast Natural Medicine Beyond Green Travel, LLC Biddeford Savings Bank

Bigrock Ski Area

Blue Hill Peninsula Chamber of

Commerce Blue Wave Dance **BookSmart** Calzolaio Pasta Co.

Capitol Computers

Caring Hands of Maine Dental Center

Casco Bay SafeLawns

Casco Passage

Child Care Services of York County

Children's Center Chinchillas Antiques Clean Bee Laundry Cleary Law Office Coastal Prosthetics, Inc. Community Concepts, Inc. Community Dental Center Community Voices Comparison North America

Council on International Educational

Exchange

Crisis & Counseling Centers

Curves of Calais Dacri & Associates, LLC Davis Florist, Inc. Dean Irons Carpentry Dyer, Goodall & Denison

Eastport Health Care Inc.

Educational and Career Planning El Camino Elder Circle Inc.

Electrolysis by Bey Electro-Tec Flatlanders' Farm Flipside Pizza Gil Tenney

Great Falls Security Systems Greater Somerset Public Health

Collaborative

Harbor House Comm. Service Center

Havana

Health Access Network HealthCare Solutions Healthy Acadia HealthyWise, LLC Island Nursing Home

JD'A Consulting, Inc. Joel D. Davis & Associates

Joyful Harvest Neighborhood Center

JTW Enterprises, Inc.

K-9 Solutions

Kennebec Valley YMCA Kennebunkport Public Health Laite Construction, LLC

Law Office of Tobi L. Schneider Lila East End Yoga

Machias Adult & Community Education/CWCABEC Main Street Skowhegan

Maine Coast Sea Vegetables, Inc. Maine Fire Equipment Co., Inc. Maine Labor Group on Health Maine Primary Care Association

Maine Robotics

Maine Small Business Coalition

Mainely Girls Mainely Trusses MCH, Inc.

McKenney Photography

MDI & Ellsworth Housing Authorities

Meadowview Therapeutics Medical Care Development Melanie's Home Childcare

MH Solutions Inc

Mid Coast Health Services

Mills Tax Prep Mind Body Nutrition Mothers Moon NMCC Health Service

No. Maine Community College Northern York County YMCA

Norway Rehab

Parkside Children's Learning Center

Partners for Change, Inc PDB Ventures LLC

Pemetic Purveyors with RE/MAX Hills

& Harbors Realty Penobscot Bay YMCA Pleasant River Lumber Power of Prevention Precision Piano

Regional Medical Center at Lubec

Rheal Day Spa Rubb Buildings, Inc.

Rupununi Seafax

Skowhegan Family Medicine Skowhegan Farmers' Market Somerset Economic Develop. Corp St. Apollonia Dental Clinic

Starr Bookkeeping

Subterranean Music Works Tempo Employment Services

Standard Waterproofing, Inc

The Avalon Group The Baker Company The Brown Bag

The Barefoot Storyteller

The Children's Center-Sanford/Kittery

The Community Dental Center of

Waterville

The Community School The Eastland Motel The First, N.A.

The Little Dog Coffee Shop

The Little Dolphin School Foundation

The Maine Behavioral Health

Foundation

The Offices of Dr. Kathleen Abernathy The Offices of Fred White, Ph.D. The Offices of John D. Koons, DMD

The Quoddy Tides The Salvation Army Thin Blue Line Meats Town of Pittsfield Tradewinds Marketplace

Tree Spirits, Inc.

Two Rivers Realty, LLC Uhl-Melanson Investor Services Union River Healthy Communities Unitarian Universalist Society of

Bangor

United Way of Greater Portland

United Way of Mid-Maine

University of Maine at Presque Isle Vacationland Bowling Center Venus & Apollo Fitness Center Washington County Council of

Governments

Wellness Council of Maine

Wellspring, Inc

Whittemore's Real Estate WoodenBoat Publications Inc.

Worldly Trekker Designs York Hospital

Youth and Family Services

FUND FORA HEALTHY MOINE

Friends of the Fund for a Healthy Maine

The following organizations strongly endorse efforts that will keep tobacco settlement money used as it was intended and prevent further diversions away from the Fund for a Healthy Maine.

ACCESS Health Advocates for Children Alliance for Children's Care, Education and Supporting Services American Cancer Society, NE Division American Heart Assoc.-Founders' Affiliate American Lung Assoc, in Maine American Nurses Assoc. of Maine Androscoggin Cardiology Associates Androscoggin Head Start & Child Care Androscoggin Head Start and Child Care Anthem Blue Cross Blue Shield Aroostook Council for Healthy Families Aroostook County Action Program Aroostook Mental Health Services Bangor Region Public Health and Wellness Breathe Easy Coalition of Maine Bridgton Community Center Bucksport Bay Healthy Communities Coal. Care Link/MRDC, Inc. Caribou City Council Child & Family Opportunities, Inc. Child and Family Opportunities, Inc. Child Care Services of York County Children's Dental Clinic Choose To Be Healthy City of Portland Coastal Enterprises, Inc. Coastal Healthy Communities Coalition Common Cause Maine Community Concepts, Inc. Consumers for Affordable Health Care Day One Downeast Health Services, Inc. **Downeast Healthy Tomorrows** Family Planning Assoc. of Maine First Congregational Church Great Works Internet Greater Portland Chambers of Commerce Greater Somerset Public Health Collaborative Greater Waterville PATCH

Greater Waterville's Communities for

Healthways/Regional Medical Center at

Healthy Communities of the Capital Area

Harrington Family Health Center

Children

Lubec

Healthy Acadia

Healthy Androscoggin

Healthy Community Coalition

Healthy Aroostook

Healthy Casco Bay

Healthy Lakes Region Healthy Lincoln County Healthy Oxford Hills Healthy Peninsula Healthy Portland Healthy Rivers Region Healthy Waldo County Horace Mitchell Primary School Islands Community Medical Services, Inc. Katahdin Area Partnership Katahdin Valley Health Center Kennebec Behavioral Health Kennebec Valley Community Action Program Kennebunkport Public Health Department Kittery Children's Leadership Council Kittery School Department Kno-Wal-Lin Homecare and Hospice Knox County Community Health Coalition Legal Services for the Elderly Lewiston Public Schools Maine AFI-CIO Maine Alliance for Addiction Recovery Maine Alliance to Prevent Substance Abuse Maine Assoc. of Interdependent Neighborhoods Maine Assoc. of School Nurses Maine Assoc. of Substance Abuse Programs Maine Cardiovascular Health Council Maine Center for Public Health Maine Chapter, National Assoc. of Social Workers Maine Child Care Directors Assoc. Maine Children's Alliance Maine Children's Trust Maine Co-Occuring Policy Exchange Maine Council of Senior Citizens Maine Council of Churches Maine Dental Access Coalition Maine Education Assoc. Maine Equal Justice Maine General Health Maine Head Start Director's Assoc. Maine Hospital Assoc. Maine Medical Assoc. Maine Nurse Practitioners Assoc. Maine Osteopathic Assoc. Maine Peoples' Alliance Maine Primary Care Assoc. Maine Public Health Assoc. Maine School Health Education Coalition Maine Society for Respiratory Care Maine State Chamber of Commerce Maine State Nurses Assoc.

Maine Substance Abuse Foundation Maine Winter Sports Center Maine Women's Lobby MaineHealth ME Assoc, of Child Abuse and Neglect ME Assoc. of Health, Phys.Ed., Rec. & Dance Medical Care Development Midcoast Maine Community Action Mid-Maine Chamber of Commerce Milestone Foundation MDI's Behavioral Health Center My Attitude Saves Kids Northern Maine Medical Center Partners for Healthier Communities Partnership for a Healthy Northern Penobscot Pen Bay Healthcare Penobscot Community Health Center Penobscot Dental Access Coalition Penquis Penguis CAP People's Regional Opportunity Program Phoenix Academy of Maine Piscataguis Public Health Council Planned Parenthood of No.New England Power of Prevention River Coalition River Valley Healthy Communities Coalition Roman Catholic Diocese of Maine Sebasticook Valley Healthy Communities Serenity House Southern Kennebec Healthy Communities Southern Kennebec Child Development Co St. Croix Valley Healthy Communities Start ME Right Teen and Young Parent Program of Knox Co The Community School Town of Lincolnville Town of Van Buren Recreation Department Tri-County Mental Health Services Union River Healthy Communities United Way of Mid-Maine University of Maine Vital Pathways Waldo County Dental Task Force Waldo County Head Start Wellspring, Inc. Winter Kids York County Community Action Corp. York Hospital Youth Promise

‡ AMERICAN LUNG ASSOCIATION® Fighting for Air

American Lung Association of New England

lungne.org

OFFICES:

Connecticut
45 Ash Street
E. Hartford, CT 06108
Fax: 860-289-5405

Maine

122 State Street Augusta, ME 04330 Fax: 207-626-2919

Massachusetts

460 Totten Pond Road Suite 400 Waltham, MA 02451 Fax: 781-890-4280

393 Maple Street Springfield, MA 01105 Fax: 413-737-3511

New Hampshire

1800 Elm St. Manchester, NH 03104 Fax: 603-369-3978

Rhode Island

260 West Exchange Street Suite 102B Providence, RI 02903 Fax: 401-331-5266

Vermont

372 Hurricane Lane Suite 101 Williston, VT 05495 Fax: 802-876-6505 Testimony from Ed Miller of the American Lung
Association of New England to the Commission to
Study the Allocations of the Fund for a Healthy
Maine

November 4, 2011

Senator McCormick, Representative Sanderson and distinguished members of the Commission to Study Allocations of the Fund for a Healthy Maine. I am Ed Miller, Senior Vice-President for Health Promotion and Public Policy at the American Lung Association of New England.

Our focus at the Lung Association is on healthy air, tobacco control and all lung disease, including asthma and COPD. Our mission is to save lives by improving lung health and preventing lung disease and we do that through education, research and advocacy. The American Lung Association of New England receives no funding from the Fund for a Healthy Maine. However, we fully support the focus of using tobacco settlement funds to finance evidence-based tobacco control, general health promotion and other prevention efforts that will improve the health and quality of life of Maine people.

Smoking Is Still The #1 Preventable Cause of Death and Disease

Despite the great declines achieved in adult and youth smoking rates in the last decade¹ and emergent public health issues like obesity, tobacco is still the number-one preventable cause of death and disease in Maine and America.² Tobacco currently is responsible for 2,200 deaths more than \$600 million in public and private health care costs a year in Maine.³ As the Legislators on this committee well know, Maine's health care costs continue to be a major fiscal challenge. Tobacco costs the state's Medicaid program as much as \$216 million a year.⁴

Funds Are From A Special Source, For A Special Purpose

⁴ ibid



¹ http://www.tobaccofreemaine.org/explore_facts/Maine_facts_and_stats.php

² http://www.cdc.gov/chronicdisease/resources/publications/AAG/osh.htm

³ http://www.tobaccofreekids.org/facts_issues/toll_us/maine

As you are aware, the Fund for a Healthy Maine is replenished yearly in perpetuity as the result of health care cost recovery litigation between Maine, 43 other states and major tobacco companies. The Master Settlement Agreement and the Fund for a Healthy Maine present our best, and perhaps our only, chance to get ahead of ever increasing health care costs. We can bring down the high cost of health care by funding prevention efforts, rather than expensively treating chronic diseases that are largely preventable. Prevention works and prevention is cheap. According to a 2008 study by the Trust for America's Health, for every \$1.00 spent on prevention, Maine can avoid \$7.50 in future health care costs.⁵

Maine Has Been A Leader, But We Can Do Better

Maine is to be commended on its past decisions to use the Fund for a Healthy Maine to support evidence-based prevention efforts. However, we at the Lung Association feel that Maine can do better. From FY 2000 through the current budget biennium, Maine has diverted \$127 million from the Fund for a Healthy Maine to the General Fund to be used for any-purpose. By comparison, the state has directed only \$123 million of FHM dollars toward focused anti-tobacco efforts over the same time period. In FY 2013 the state of Maine will meet just 50.7% of the US CDC's target budget for effective tobacco prevention and control programs. I hope that addressing this will be a focus of your work.

The American Lung Association of New England welcomes the opportunity to review the allocations of the Fund for a Healthy Maine and the need to support evidence-based solutions to pressing public health needs. We look forward to working with the Commission and welcome any opportunity to answer questions you may have today or at any time during this process.

Thank you.

⁵ http://healthyamericans.org/reports/prevention08/

⁶ This amount is calculated as 66% of the total allocated to the Partnership for a Tobacco Free Maine and the Community and School Grants lines.

⁷ http://www.cdc.gov/tobacco/stateandcommunity/best_practices/index.htm



Public Comment to the Commission to Study Allocations of the Fund for a Healthy Maine Submitted by Judy Reidt-Parker, Early Childhood Policy Analyst, Maine Children's Alliance

Representative Sanderson and Distinguished Members of the Committee:

The Maine Children's Alliance (MCA) is a non-partisan, not –for-profit, statewide organization whose purpose is to advocate for sound public policies that improve the lives of all Maine children, youth and families.

The Fund for a Healthy Maine is a solid example of investment in prevention and the long-term health of Maine people. The eight priorities of the Fund for a Healthy Maine are smart investment strategies for our children's future and the health of our state's economy. Three focus specifically on early childhood services: child care subsidies, home visitation and Head Start. I will address these programs today.

Scientific evidence, economic analysis and longitudinal studies have all demonstrated that ensuring each child a safe, healthy and nurturing early childhood experience results in significant positive outcomes later in that child's life.

On the other hand, children exposed to violence, abuse, neglect, or extreme poverty can have lifelong difficulties in learning, memory and self-regulation, which are necessary for school readiness. As adults, their risk of developing chronic health conditions such as diabetes, obesity and heart disease increases. A high degree of changes and transitions, inconsistent child care arrangements, or unstable housing arrangements can have a negative impact on a child's brain development.

Healthy families yield a healthy economy. When people are healthy, children do better in school, workers are more productive, and businesses can add jobs because their health costs are lower.

The three early childhood services included in the Fund for a Healthy Maine – child care, home visiting and Head Start – all affect the public health concerns of child well-being and family security.

- Child care funding is used to draw down the needed federal funds to ensure that low- income working families can access safe, affordable child care. Child care subsidies ensure that working families have the resources needed to meet their children's basic needs both at and away from home. To be healthy, children need to be in safe and nurturing environments with consistent providers while their parents are working. The original intent of the child care funding in the Fund for a Healthy Maine was focused on ensuring quality environments and to provide professional development activities for child care providers.
- > Home visitation provides services for first-time parents with identified risk factors such as isolation, extreme poverty or children with special needs. Home visiting programs help families understand their child's developmental needs and connect them to the community resources available to them.
- Head Start promotes school readiness by providing education, health, vision, hearing, mental health, nutrition, social, parenting education and other services to very low-income children and their families.

Communities are most vibrant when they provide social support for parents, learning opportunities for children, and services for families in need. When children have nurturing and responsive experiences, a strong foundation for future development is ensured. Maintaining the Fund for a Healthy Maine commitment to these public health supports is smart policy for the future as well as the here and now.



More than Dentistry. Life." Maine Donated Dental Services (DDS)

P.O. Box 2282 Augusta, ME 04338-2282 Phone/Fax: 207.620.8276 www.dentallifeline.org Senator Earl McCormick, Representative Deborah Sanderson and Members of the Commission to Study Allocations of the Fund for a Healthy Maine C/O the Joint Standing Committee on Health and Human Services 13 State House Station Augusta, ME 04333

Dear Commission Member,

We are truly thankful for the continued support from the Fund for a Healthy Maine for our Donated Dental Services (DDS) program. The State's contract with DDS demonstrates a commitment to providing dentistry to Maine's most needy.

We know, as do you, that dentistry changes and saves lives, and that every person deserves a healthy smile. Every day, with the help of our Maine dentist and laboratory volunteers, we donate dental treatment for people with disabilities, the elderly, and medically fragile, because without us they would have nowhere else to go.

The State's appropriation this year of \$36,463 will generate \$250,000 worth of donated treatment for 92 deserving Maine citizens who have no other way to get help. DDS is unique from our fellow dental charities in that we provide *comprehensive* dentistry for people with complex dental problems. Our patients require multiple visits not just emergency or palliative care – the treatment our patients receive averages \$2,700 per case, but only costs us \$385 to coordinate. This year, for every dollar we spend, our volunteers will donate \$7 worth of treatment.

One of the 92 people helped this year will have similar needs as Ms. W. from Windham. While in the middle of her treatment process this year, she wrote:

"Removal of my teeth to prevent gum infection was determined to be necessary several years ago by both my dentist and cardiologist. Nevertheless, this life saving surgery was not approved by Medicare and like most Mainers, I had no dental insurance. DDS was literally my life saver. I may be a writer, but there are not words sufficient to tell you how much I appreciate the compassion, kindness and dignity with which I have been given and continue to be treated during their skillful care.



in collaboration with more than 15,000 volunteer dentists and 3,000 volunteer laboratories

Strategic Partners:

American Dental Association Academy of General Dentistry American Academy of Implant Dentistry American Academy of Periodontology American Association of Endodontists American Association of Oral and Maxillofacial Surgeons American Association of Orthodontists American Association of Women Dentists American College of Dentists American College of Prosthodontists American Dental Assistants Association Hispanic Dental Association National Association of Dental Laboratories National Dental Association The Pankey Institute

Financial support from:

ADA Foundation
Colgate-Palmolive Company
Delta Dental
Dental Trade Alliance
Dentsply International
Patterson Foundation

Assistance from:

3M ESPE
Argen
Biomet 3i
Great-West Life and Annuity Insurance Company
Henry Schein Dental
Ivoclar Vivadent
Jensen Industries
Nobel Biocare
Patterson Dental Company
Philips Oral Healthcare
Straumann
Vident
Zimmer Dental

Recognized by:

American College of Cardiology Foundation American College of Rheumatology American Diabetes Association American Society of Clinical Oncology American Society of Transplant Surgeons Forum of End State Renal Disease Networks Renal Physicians Association Society for Transplant Social Workers













I still have patience left – am hoping to be eating turkey at Christmas, not a ground turkey patty!"

Ms. W. is being treated by two of 156 dentists and 45 dental laboratories that dedicate their time to treat one or two people per year. Without them, DDS could not exist.

With the assistance of the Maine Legislature, our volunteers, the Maine Dental Association, and several other stakeholders, 900 Maine citizens with disabilities and those who are elderly or medically fragile have received over \$2 million in donated care since 1999.

With all the lives we've changed and saved, there is still more work to do-348 eligible people are waiting for our services, and the list will continue to grow. The continued help from the Fund for a Healthy Maine is more important than ever to support our volunteers, so we ask you to take into consideration how much we are able to do.

Again, thank you for your support, and for taking the time to read our very important message. Please help us continue to care for the people who need it most.

Sincerely,

Melissa Bosworth

Vice President of Affiliate Operations



Maine Head Start Directors Association

Doug Orville, Legislative Liaison
Child and Family Opportunities, Incorporated
PO Box 648, Ellsworth, ME 04605
Phone: (207) 667-2995

Testimony of Doug Orville

Before the Commission to Study Allocations of the Fund for a Healthy Maine

November 4, 2011

Senator McCormick, Representative Sanderson and members of the Commission, my name is Doug Orville. I serve as the Executive Director of Child and Family Opportunities, Inc. headquartered in Ellsworth and a provider of Head Start, Early Head Start, and child care services in Hancock and Washington counties. I am also a member of the Maine Head Start Directors Association. I am here today on behalf of Maine's 11 non-tribal Head Start and Early Head Start programs.

Head Start receives an allocation of \$1.35 million a year from the Fund for a Healthy Maine. We use that allocation to serve 151 children and families – 108 in Head Start and 43 in Early Head Start. Overall, Head Start and Early Head Start serve 3,800 of the most severely at risk children aged birth to 5 in Maine. Early Head Start targets pregnant women and children ages birth to 3; Head Start assists children ages 3-5. Unfortunately, our total funding from both the federal and state government enable us to serve only about 30% of all 3-5 year olds and only about 10% of children from birth to 3 who live in poverty in Maine.

All children from families with incomes at or below the poverty level are financially eligible for Head Start. Of those children, Head Start selects the most vulnerable and at risk. The risk factors include abuse and neglect, domestic violence, a disability impacting learning and development, limited language or social/emotional skills, homelessness, or parents who are teenagers, incarcerated, or suffer from substance abuse or mental health issues. Head Start targets the most at risk kids in order to keep them safe and healthy.

Head Start provides comprehensive early care and education as well as a variety of assistance to these children and their families that regular child care simply does not. These include health, nutrition, vision, hearing and mental health services for children. These services immediately improve the health of children and measurable health gains continue through childhood.

Head Start parents receive a variety of assistance, including home visits, family literacy and vocational supports. Each Head Start program also has a Policy Council comprised primarily of current parents which works with staff to operate the program. Parents on the Council are

involved in policy development, budget review and approval, and hiring decisions. This opportunity often produces tremendous growth in the parents, too.

Research shows that these intensive supports for children and their families make a lasting impact. Head Start:

- Improves School Readiness
- Increases educational achievement
- Improves child health
- Reduces the chance a child will turn to crime
- Improves parenting skills and practices

Let me give you an example of how the Fund for a Healthy Maine and Head Start make a difference. Earlier this fall, a Head Start program was asked to take in a four year old from a family with severe problems. The mother had just been arrested for domestic violence. This child desperately needed a safe, nurturing environment during the day. That Head Start program was able, thanks to the Fund for a Healthy Maine, to provide full day, full year service to that four year old. We helped keep that child safe and healthy.

Head Start and Early Head Start are appropriate uses of the Fund for a Healthy Maine. The FHM Statute requires that the funds be used for public health purposes, such as "prenatal and young children's care ... including support for parents," "child care," and "health care." Head Start and Early Head Start meet that standard. We provide a variety of health screenings for children. In addition, research has concluded that high quality early childhood development is a key determinant of future health, making Head Start and other high quality early childhood development programs fundamental public health programs.

Attached to my testimony are 3 documents supporting these conclusions:

- 1. The 2010 Maine Head Start Report
- 2. Prominent Researchers Support Head Start Funding, a March 2011 letter to Congress
- 3. Early Childhood Experiences: Laying the Foundation for Health Across a Lifetime, a March 2011 Issue Brief from the Robert Wood Johnson Foundation

Please support retaining Head Start funding within the Fund for a Healthy Maine.

Thank you and I would be happy to take any questions.

Prominent Researchers Support Head Start Funding

March 2011

Dear Member of Congress,

We understand that due to growing federal deficit, we are entering a period of significant cuts to non-security discretionary spending. At a time when America's economic survival and global competitiveness is at stake, while child poverty in America is also soaring, we consider cuts to Head Start and Early Head Start extremely short-sighted. As researchers, we offer some facts about Head Start that are worth remembering:

Head Start improves the odds and the options for at-risk kids for a lifetime. Kids that have been through Head Start and Early Head Start are healthier, more academically accomplished, more likely to be employed, commit fewer crimes, and contribute more to society.

Simply put: Head Start works. It's been proven.

Studies of Head Start programs found that Head Start increases educational achievement: raising test scores, decreasing the need for children to receive special education services and making it less likely that children will repeat a grade. Head Start graduates are also more likely to graduate from high school and attend college.

Head Start's impact on child health is impressive. Likely because of its required medical screenings, vaccinations, and emphasis on nutrition, Head Start reduces by as much as 50 percent the mortality rates for 5- to 9-year-olds.³ A Head Start child is 19 to 25 percent less likely to smoke as an adult.⁴ And Head Start parents receiving health literacy decreased annual Medicaid costs by \$232 per family.⁵

Head Start graduates are 12 percent less likely to be booked or charged with a crime.⁶ This reduction translates into savings for crime victims, local, state, and federal governments, and the American taxpayer.

The National Impact Study of Head Start found that children attending Head Start made significant cognitive and socio-emotional gains compared with the control group children during the Head Start year and were in better health compared to the control group children.⁷

And it's not just the at-risk kids who benefit. Head Start and Early Head Start also provide improved parenting skills and practices.⁸ Head Start's emphasis on parental involvement contributes to the upward mobility of Head Start parents by helping to move them out of poverty,⁹ and that Early Head Start parents are much more likely to participate in job training programs and more likely to have a job.¹⁰ At a time when unemployment rate is hovering close to 10%, Head Start and Early Head Start are critical gateways to employment.

As the 112th Congress evaluates domestic discretionary spending, we urge you to look at the substantial research showing that Head Start and Early Head Start programs have a long history of not only being a wise investment and saving local, state, and federal taxpayers money but also a critical safety net for our most vulnerable citizens.

Multiple studies demonstrate that Head Start is an astoundingly smart investment. For every \$1 invested in Head Start, we get a Return On Investment (ROI) ranging from \$7 to \$9.11 As James Heckman, a Nobel Laureate in Economics at the University of Chicago, recommended to the National Commission on Fiscal Responsibility and Budget Reform: "Early Head Start and Head Start are programs on which to build and improve—not to cut." That's why we ask that Congress to provide \$8.2 billion in Fiscal Years 2011 and 2012 to ensure that Head Start and Early Head Start can maintain their current enrollment levels.

Sincerely,

Edward Zigler, Ph.D.
Sterling Professor of Psychology, *Emeritus*Director Emeritus, The Edward Zigler Center in Child Development and Social Policy Yale University

Kathleen McCartney, Ph.D. Dean & Gerald S. Lesser Professor in Early Childhood Development Harvard Graduate School of Education Harvard University

Mary Abbott, Ph.D. Associate Research Scientist University of Kansas

Linda Albi, M.S. Adjunct Faculty Field Experience Coordinator Early Intervention Master's Program University of Oregon

LaRue Allen, Ph.D. Professor New York University

Jennifer Astuto, Ph.D. Assistant Director, Assistant Research Professor Child and Family Policy Center, Department of Applied Psychology New York University

Jane Atwater, Ph.D. Assistant Research Professor University of Kansas Stephen J. Bagnato, Ed.D. Professor of Pediatrics & Psychology University of Pittsburgh

Jessica V. Barnes, Ph.D. Associate Director of University-Community Partnerships Michigan State University

Steven Barnett, Ph.D. Co-Director National Institute for Early Education Research Rutgers University

Sandra Barrueco, Ph.D.
Assistant Professor of Psychology
Fellow of the Institute for Policy Research & Catholic Studies
The Catholic University of America

Lauren Barton, Ph.D. Early Childhood Development Researcher SRI International

Diane Becker, NCCJTS, ILCSW Founder Avenue For Change

Linda S. Beeber, Ph.D., APRN-BC, FAAN Professor School of Nursing University of North Carolina at Chapel Hill

Katherine Renee Behring, M.Ed Early Childhood Education Consultant University Settlement

Lisa Berlin, Ph.D. Research Scientist Duke University

Ilene Berson, Ph.D. Professor of Early Childhood Education University of South Florida

Kathryn Bigelow, Ph.D. Assistant Research Professor Juniper Gardens Children's Project University of Kansas

Charles Bleiker, Ph.D. Associate Professor Florida International University Mary Boat, Ph.D. Associate Professor Early Childhood Education and Director of Graduate Studies University of Cincinnati

Patti Bokony, Ph.D. Assistant Professor University of Arkansas for Medical Sciences

Rosemary Bolig, Ph.D. Professor of Early Childhood Education University of the District of Columbia

Neil W. Boris, M.D. Professor Tulane University

John Borkowski, Ph.D. Research Professor of Psychology Andrew J. McKenna Family University of Notre Dame

Kelly K. Bost, Ph.D. Associate Professor University of Illinois

Lisa Boyce, Ph.D. Research Assistant Professor Utah State University

Isabel Bradburn, Ph.D. Research Director, Child Development Center for Learning and Research Virginia Tech University

Robert Bradley, Ph.D. Professor Arizona State University

Linda Brekken, Ph.D.
Director
SpecialQuest Consulting Group
Napa County Office of Education

Christopher Brown, Ph.D. Assistant Professor of Political Science

David L. Brown, Ph.D. Professor of Early Childhood Education William L. Mayo Texas A&M University-Commerce Jan Brown, M.Ed.

Holly Elissa Bruno, J.D. Adjunct Professor Wheelock College

Deborah A. Bruns, Ph.D. Associate Professor Southern Illinois University of Carbondale

Margaret Burchinal, Ph.D. Senior Scientist Frank Porter Graham Child Development Institute The University of North Carolina at Chapel Hill

Barbara M. Burns, Ph.D. Professor University of Louisville

M. Susan Burns, Ph.D. Associate Professor George Mason University

Virginia Buysse, Ph.D. Senior Scientist University of North Carolina at Chapel Hill

Victoria Carr, Ed.D. Associate Professor University of Cincinnati

Judith Carta, Ph.D. Senior Scientist/Professor Juniper Gardens Children's Project University of Kansas

Dina C. Castro, Ph.D.
Senior Scientist
Frank Porter Graham Child Development Institute
University of North Carolina at Chapel Hill

Eun Kyeong Cho, Ed.D. Assistant Professor University of New Hampshire

Audrey Clark, Ph.D.
Professor Emeritus
California State University Northridge

Jantina Clifford, Ph.D. Assistant Professor University of Oregon Richard M. Clifford, Ph.D. Senior Scientist Frank Porter Graham Child Development Institute University of North Carolina at Chapel Hill

David Cohen Director Education, Research & Outreach Sesame Workshop

Cynthia Garcia Coll, Ph.D. Charles Pitt Robinson and John Palmer Barstow Professor Professor of Education, Psychology & Pediatrics Brown University

Marliee Comfort, Ph.D.
Partner
Parenting Assessment Research & Development & Dissemination
Comfort Consults, LLC

Nicola Conners-Burrow, Ph.D. Research Associate Professor University of Arkansas for Medical Sciences

Gina A. Cook, Ph.D. Research Scientist Utah State University

Rob Corso, Ph.D. Assistant Research Professor Vanderbilt University

Leslie Couse, Ph.D. Associate Professor of Early Childhood Education University of New Hampshire

Diane Craft, Ph.D. Professor State University of New York at Cortland

Danielle Crosby, Ph.D. Assistant Professor University of North Carolina at Greensboro

Flavio Cunha, Ph.D. Assistant Professor University of Pennsylvania

Janet Currie, Ph.D. Sami Mnaymneh Professor of Economics Columbia University Lois-ellin Datta, Ph.D. President Datta Analysis

Andrea DeBruin-Parecki, Ph.D. Associate Professor and Graduate Program Director Early Childhood Old Dominion University

Michelle DeKlyen, Ph.D. Associate Research Scholar Princeton University

Susanne A. Denham, Ph.D. Professor
Department of Psychology
George Mason University

Sarah Dennis, Ph.D Facilitator with the New Schools Project Erikson Institute

Cynthia DiCarlo, Ph.D. Associate Professor Louisiana State University

Susan Dickstein, Ph.D. Associate Professor Department of Psychiatry and Human Behavior Brown Medical School

Laurie Dinnebeil, Ph.D.
Professor and Daso Herb Chair, Inclusive ECE
University of Toledo

Sebreana Domingue Research Associate UL Lafayette

Catherine Donahue, Ed.D. Associate Professor Wheelock College

Anne Douglass, Ph.D. Assistant Professor College of Education and Human Development University of Massachusetts Boston

Jason Downer, Ph.D. Senior Research Scientist University of Virginia Marilyn C. Dumont-Driscoll, Ph.D., M.D. Associate Professor University of Florida College of Medicine

Carolyn Pope Edwards, Ed.D.
Willa Cather Professor
Departments of Psychology, and Child, Youth,
and Family Studies
University of Nebraska

Kristen Ehrhardt, Ph.D. Professor and Unit Coordinator Western Michigan University

Pam Elwood, Ph.D. Consultant of EC Kent State University

Richard Fabes, Ph.D.

Dee and John Whiteman Distinguished Professor of Child Development

Dee and John Whiteman

Arizona State University

Richard Faldowski, Ph.D. Associate Professor University of North Carolina at Greensboro

Beverly Falk, Ed.D. Professor School of Education, The City College of New York

Michaela L. Z. Farber, M.S.W., Ph.D. Associate Professor National Catholic School of School of Service The Catholic University of America

Edward G. Feil, Ph.D. Senior Research Scientist Oregon Research Institute

Jason Kane Feld, Ph.D. Vice President Corporate Projects Assessment Technology, Inc.

Anne L. Fetter, Ph.D. Scientifically Based Researcher Research Consulting & Design

Richard Fiene, Ph.D.
Professor of Human Development and Family Studies & Psychology
Penn State University

Barbara H. Fiese, Ph.D.
Professor and Director
Family Resiliency Center
University of Illinois at Urbana-Champaign

Janet Filer, Ph.D.
Associate Professor
Department of Early Childhood and Special Education
University of Central Arkansas

Hiram E. Fitzgerald, Ph.D. Associate Provost and University Distinguished Professor Michigan State University

Roseanne L. Flores, Ph.D. Associate Professor Hunter College of the City University of New York

Susan Fowler, Ph.D. Professor University of Illinois

Ellen Frede, Ph.D.
Co-director and Research Professor
National Institute for Early Education Research
Rutgers University

David Frisvold, Ph.D. Assistant Professor of Economics Emory University

Victoria R. Fu, Ph.D.
Professor
Child and Adolescent Development
Virginia Polytechnic Institute and State University

Michael Fultz, Ed.D. Associate Professor University of Wisconsin-Madison

Kathleen Cranley Gallagher, Ph.D. Scientist Frank Porter Graham Child Development Institute University of North Carolina at Chapel Hill

Sukhdeep Gill, Ph.D. Associate Professor Pennsylvania State University

Walter Gilliam, Ph.D. Associate Professor of Psychiatry and Psychology Yale University School of Medicine Herbert P. Ginsburg, Ph.D. Professor of Psychology and Education Jacoh H. Schiff Foundation Teachers College Columbia University

Mark R. Ginsberg, Ph.D.

Dean and Professor

College of Education and Human Development
George Mason University

Marika Ginsburg-Block, Ph.D. Program Coordinator and Associate Professor of School Psychology University of Delaware

Carla B. Goble, Ph.D. Professor of Child Development George Kaiser Family Endowed Tulsa Community College

Michael K. Godfrey, Ph.D. Professor Brigham Young University-Idaho

Phil Gordon, Ph.D. Partner Comfort Consults, LLC.

Sandra Graham-Bermann, Ph.D. Professor of Psychology and Psychiatry University of Michigan

Liane Grayson, Ph.D. Senior Research Analyst Minnesota Department of Human Services

Beth Green, Ph.D.
Director of Early Childhood and Family Support
Center for Improvement of Child and Family Services
Portland State University

Katy Gregg, Ph.D. Assistant Professor Georgia Southern University

Carolyn Griess, Ph.D. (ABD) Faculty Penn State University

Jennifer Grisham-Brown, Ed.D. Professor University of Kentucky Christina J. Groark, Ph.D. Co-director, Office of Child Development University of Pittsburgh

Judy Grossman, Ph.D.
Associate Director
Center for the Developing Child and Family
Ackerman Institute for the Family

Alison Wishard Guerra, Ph.D. Assistant Professor UC San Diego

Sarika S. Gupta, Ph.D.
Postdoctoral Fellow
Early Childhood Special Education Leadership/Policy
University of Colorado Denver

Trevor Hadley, Ph.D. Professor of Psychology and Psychiatry University of Pennsylvania

Rena Hallam, Ph.D. Associate Professor Department of Human Development and Family Studies University of Delaware

Brenda Jones Harden, Ph.D. Associate Professor University of Maryland

Sanna Harjusola-Webb, Ph.D. Assistant Professor Kent State University

Martha Elizabeth Harmon, M.A. Writer and Consultant Research for Different Educational Facilities

Thelma Harms, Ph.D.

Scientist Emeritus
Frank Porter Graham Child Development Institute
The University of North Carolina at Chapel Hill

Kathleen Hebbeler, Ph.D. Program Manager SRI International

Mary Louise Hemmeter, Ph.D. Associate Professor Vanderbilt University Barbara Henderson, Ph.D. Professor of Education San Francisco State University

Blythe Hinitz, Ed.D. Professor The College of New Jersey

Deborah L. Hintz-Knopf Program Manager in Education, Mental Health, Disabilities for Head Start Agency University of Wisconsin-Stout

Alice Sterling Honig, Ph.D. Professor Emerita of Child Development Syracuse University

Diane M. Horm, Ph.D. Director, Early Childhood Education Institute GKFF Endowed Chair University of Oklahoma-Tulsa

Peter Huffaker, M.B.A., M.A. Partner Child Care Results

Elisa A. Huss-Hage, M.Ed. Professor Owens Community College

Jason Hustedt, Ph.D. Assistant Professor Department of Human Development and Family Studies University of Delaware

Alissa Huth-Bocks, Ph.D. Associate Professor Eastern Michigan University

Mark S. Innocenti, Ph.D.
Director
Research & Evaluation, Center for Person with Disabilities
Utah State University

Iheoma Iruka, Ph.D. Investigator Frank Porter Graham Child Development Institute University of North Carolina at Chapel Hill

Jean Ispa, Ph.D. Professor University of Missouri Carroll Izard, Ph.D. Trustees Distinguished Professor of Psychology University of Delaware

Gera Jacobs, Ed.D. Professor of Early Childhood Education University of South Dakota

Kristen Roorbach Jamison, Ph.D. Research Associate University of Virginia

Abigail Jewkes, Ph.D. Assistant Professor Hunter College, City University of New York

Lawrence J. Johnson, Ph.D. Dean, College of Education, Criminal Justice, and Human Services University of Cincinnati

Sharon Lynn Kagan, Ed.D.

Hayley Kahn, M.Ed., M.A. Brown University

Lilian G. Katz, Ph.D.
Professor Emerita &
Co-Director of the Clearinghouse on Early Education and Parenting
University of Illinois

Michelle Kees, Ph.D. Assistant Professor University of Michigan

Kristen Clarke Kellems, J.D. Research Associate University of Oregon

Margaret King, Ed.D Professor Emerita Ohio University

Elisa Klein, Ph.D. Associate Professor of Human Development University of Maryland, College Park

Christopher Kloth Senior Consultant ChangeWorks of the Heartland

Mary Maguire Klute, Ph.D.
Senior Director of Research and Evaluation
Clayton Early Learning Institute

Lisa L. Knoche, Ph.D.
Research Assistant Professor
Nebraska Center for Research on Children, Youth, Families and Schools

Laura Kohn-Wood, Ph.D. Associate Professor Associate Chair and Program Director University of Miami, School of Education

Jon Korfmacher, Ph.D. Associate Professor Erikson Institute

Jonathan B. Kotch, M.D. Carol Remmer Angle Distinguished Professor of Children's Environmental Health University of North Carolina at Chapel Hill

Richard Lambert, Ph.D.
Professor
University of North Carolina at Chapel Hill

Faith Lamb-Parker, Ph.D. Professor Bank Street College of Education

Deborah J. Leong, Ph.D. Professor Emerita Department of Psychology Metropolitan State College of Denver

Joan Lieber, Ph.D. Professor University of Maryland, College Park

Linda Likins National Director Devereux

Maura Linas, Ph.D. Assistant Research Professor Juniper Gardens Children's Project University of Kansas

Christopher Lloyd, Ph.D, LCSW Assistant Professor of Social Work University of Arkansas at Little Rock

Michael L. Lopez, Ph.D. Executive Director National Center for Latino Child & Family Research Janice Lovell, M.Ed. Higher Education Grant Director Tennessee State University

Duane Lowe, Ed.D. Adjunct Faculty California State University Long Beach

Julie Lumeng, M.D. Assistant Professor of Pediatrics University of Michigan

Catherine Lugg, Ph.D.
Professor of Education
Rutgers – the State University of New Jersey

Robert Lynch, Ph.D. Professor of Economics Washington College

Shelley Macy, M.A. Early Childhood Education Faculty Northwest Indian College

Mary Maggitti, Ph.D. Professor Emerita West Chester University

Katherine Magnuson, Ph.D. Associate Professor University of Wisconsin-Madison

Christopher A. Mallett, Ph.D., Esq. Professor Cleveland State University

Patricia Manz, Ph.D. Associate Professor & Program Director of School Psychology Lehigh University

Rebecca A. Marcon, Ph.D. Professor University of North Florida

Sheila Marcus, M.D. Child and Adolescent Psychiatrist University of Michigan

Smita Mathur, Ph.D. Assistant Professor University of South Florida Polytechnic Wayne A. Mayfield, Ph.D. Research Associate University of Missouri

Rosemary McAuliffe State Senator (1st Legislative District) Washington State

Lisa McCabe, Ph.D. Research Associate Family Life Development Center Cornell University

Robert B. McCall, Ph.D.
Co-Director
Office of Child Development, and Professor of Psychology
University of Pittsburgh

Sandee McClowry, Ph.D., RN Professor New York University

Cindy McGaha, Ph.D. Associate Professor Appalachian State University

Robert McGivern, Ph.D. Professor San Diego State University

Lorraine McKelvey Ph.D. Assistant Professor University of Arkansas for Medical Sciences

Elizabeth McLaren, Ed.D. Assistant Professor of Education Morehead State University

Christine McWayne, Ph.D.
Associate Professor
Director of Early Childhood Education
Tufts University

Sara Michael-Luna, Ph.D. Assistant Professor Queens College-CUNY

Jon Miles, Ph.D. Director Searchlight Consulting, LLC.

Alison Miller, Ph.D. Assistant Research Professor University of Michigan School of Public Health Gayle Mindes, Ed.D. Professor of Education DePaul University

Kathleen M. Minke, Ph.D. Professor University of Delaware

Cheryl Mitchell, Ph.D. The James M. Jeffords Center University of Vermont

Simona Montanari, Ph.D. Assistant Professor California State University, Los Angeles

Bruce Moore, O.D. Chair Department of Specialty and Advance Care New England College of Optometry

Amanda Moreno, Ph.D. Associate Director Marsico Institute for Early Learning and Literacy University of Denver

April Morris, M.S. Partner Child Care Results

Jennifer Mosley Manager of Research Teaching Strategies

Kimberly Murphy Research Assistant University of Oregon

John Neisworth, Ph.D.
Professor Emeritus
Special Education/Early Intervention
Pennsylvania State University

Dana Nelson, Ph.D. Lecturer University of Washington

Stacey Neuharth-Pritchett, Ph.D. Assistant Professor University of South Florida Polytechnic

Julie Nicholson, Ph.D.
Director, Leadership Program in Early Childhood
Visiting Assistant Professor, Mills College

Patricia Nunley, Ed.D.
Guest Lecturer
Mills College and
School of Education & Child Development
Professor
San Francisco City College

Cindy O'Dell, Ed.D. Professor Cleveland State University

Sue Offutt, Ph.D. Executive Director National Louis University

Leslie Oppenheimer, M.Ed. ECE Curriculum Coordinator University of Maryland

Marissa Owsianik, M.A. Advanced Doctoral Candidate New York University

Mariela Paez, Ed.D Associate Professor Boston College

Gail Perry, Ph.D. Editor/Researcher National Association for the Education of Young Children

Roger Phillips, Ph.D. Development Psychologist & Consultant

Ruth Piker, Ph.D. Assistant Professor California State University, Long Beach

Peggy Daly Pizzo, M.Ed. Senior Scholar Stanford University

Douglas Powell, Ph.D. Distinguished Professor Purdue University

Kristie Pretti-Frontczak, Ph.D. Professor Kent State University Elizabeth Pungello, Ph.D. Scientist Frank Porter Graham Child Development Institute University of North Carolina at Chapel Hill

Amanda Quesenberry, Ph.D. Assistant Professor Illinois State University

C. Cybele Raver, Ph.D.
Director, Institute of Human Development and Social Change
New York University

Aisha Ray, Ph.D. Senior Vice President for Academic Affairs and Dean of Faculty Erikson Institute

Erin E. Reid, Ph.D.
Postdoctoral Research Associate
University of Illinois at Urbana-Champaign

Wendy Robeson, Ed.D. Senior Research Scientist Wellesley Centers for Women Wellesley College

JoAnn Robinson, Ph.D.
Professor, Director of Early Childhood Education and Early Intervention
Department of Human Development & Family Studies
University of Connecticut

James Rodriguez, Ph.D. Associate Professor California State University, Fullerton

Leigh Rohde, M.Ed.
Project Director
Institute on Disability
University of New Hampshire

Yeon Sun Ro, Ph.D. Assistant Professor Penn State University

Donald A. Rock, Ph.D. Senior Research Scientist Educational Testing Service

M. Victoria Rodriguez, Ed.D. Associate Professor Lehman College, CUNY Lori Roggman, Ph.D. Professor Utah State University

Rene P. Rosenbaum, Ph.D. Associate Professor Michigan State University

Sharon Rosenkoetter, Ph.D. Associate Professor Emeritus Oregon State University

Beth Rous, Ed.D. Association Professor Department of Educational Leadership Studies University of Kentucky

Susan Sandall Ph.D. Associate Professor, Special Education University of Washington

Rosa Milagros Santos, Ph.D. Associate Professor University of Illinois at Urbana-Champaign

George Scarlett, Ph.D. Professor Tufts University

Ilene Schwartz, Ph.D.
Chair and Professor, Special Education
Director, <u>Haring Center</u>
College of Education
University of Washington

Ronald Seifer, Ph.D. Professor and Research Director Brown University and E.P. Bradley Hospital

Michael Seliger, Ph.D.

Dean

Bronx Community College of the City University of New York

Rachel Schiffman, Ph.D., RN Professor and Associate Dean College of Nursing University of Wisconsin-Milwaukee

Jacqueline Shannon, Ph.D. Associate Professor Brooklyn College, City University of New York Susan M. Sheridan, Ph.D. Professor George Holmes University University of Nebraska-Lincoln

Diana T. Slaughter-Defoe, Ph.D. Constance E. Clayton Professor in Urban Education University of Pennsylvania

Brian Smith, Ph.D. Research Scientist Committee for Children

Kathleen Snow Adjunct Professor

Susan Spieker, Ph.D. Professor University of Washington

Jane Squires, Ph.D. Professor Director of Center on Human Development University of Oregon

Ann M. Stacks, Ph.D. Assistant Professor Wayne State University

Martha D. Staker, RN, M.S., M.A. Director and Principal Investigator Project EAGLE University of Kansas Medical Center

Prentice Starkey, Ph.D. Senior Project Director WestEd

Amanda Stein, Ph.D. Early Childhood Special Education Leadership Postdoctoral Fellow University of Colorado Denver

Deborah Stipek, Ph.D. James Quillen Dean of the School of Education and Professor Stanford University

Billy Stokes, Ed.D.
Director, Picard Center for Child Development
University of Louisiana at Lafayette

Joseph J. Stowitschek, Ed.D. Research Professor Emeritus University of Washington Paul Strand, Ph.D. Associate Professor Washington State University Tri-Cities

Susan Straub, M.S.W. Director The Read To Me Program

Dorothy Strickland, Ph.D. Samuel DeWitt Proctor Professor of Education, Emerita Rutgers – the State University of New Jersey

Kaveri Subrahmanyam, Ph.D. Professor of Psychology & Acting Chair California State University, Los Angeles

Jean Ann Summers, Ph.D. Research Professor University of Kansas

Mallary Swartz, Ph.D. Lecturer Eliot-Pearson Department of Child Development Tufts University

Teri Talan, Ed.D. Associate Professor National-Louis University

Angela Tookes Program Coordinator Family Foundations Early Head Start Office of Child Development University of Pittsburgh

Dana Tuller Interlochen, MI

Anne Turner-Henson, DSN, RN Professor University of Alabama at Birmingham, School of Nursing

Deborah Lowe Vandell, Ph.D. Professor and Chair of the Department of Education University of California, Irvine

Sue Vartuli, Ph.D. Associate Professor Early Childhood Education University of Missouri-Kansas City

Joan I. Vondra, Ph.D. Professor of Applied Developmental Psychology (Retired) University of Pittsburgh Alisha Wackerle-Hollman, Ph.D. Research Associate University of Minnesota

Dale Walker, Ph.D. Associate Research Professor Juniper Gardens Children's Project University of Kansas

Shavaun Wall, Ph.D. Professor of Education The Catholic University of America

Kathleen Wallner-Allen, Ph.D. Senior Study Director Westat

Roberta B. Weber, Ph.D. Faculty Research Associate Oregon State University

Janette C. Wetsel, Ph.D. Associate Professor University of Central Oklahoma

Marcy Whitebook, Ph.D.

Director and Senior Researcher, Center for the Study of Child Care Employment
University of California at Berkeley

M. Jeanne Wilcox, Ph.D. Professor and Director Infant Child Research Programs Arizona State University

Angela Wiley, Ph.D. Associate Professor University of Illinois

Jo Ann Williams, M.Ed. Executive Director Child Development, Inc.

Adam Winsler, Ph.D.
Professor of Applied Developmental Psychology
George Mason University

Edyth J. Wheeler, Ph.D. Professor Towson University

Leanne Whiteside-Mansell, Ed.D. Professor University of Arkansas for Medical Sciences Linnie Green Wright, Ph.D. Assistant Professor Boston College Graduate School of Social Work

Noreen Yazejian, Ph.D. Scientist Frank Porter Graham Child Development Institute University of North Carolina at Chapel Hill

Meryl Yoches Doctoral Student University of Maryland, College Park

Hiro Yoshikawa, Ph.D. Professor of Education Harvard University

Marlene Zepeda, Ph.D. Professor California State University, Los Angeles

Chun Zhang, Ph.D. Professor Fordham University

¹ Barnett, W. (2002, September 13). The Battle Over Head Start: What the Research Shows. Presentation at a Science and Public Policy Briefing Sponsored by the Federation of Behavioral, Psychological, and Cognitive Sciences; Barnett, W. and Hustedt, J. (2005). Head Start's lasting benefits. *Infants & Young Children*, 18 (1): 16-24; Ludwig, J. and Miller, D. (2007). Does Head Start improve children's life chances? Evidence from a regression discontinuity design. *The Quarterly Journal of Economics*, 122 (1): 159-208.

² Ludwig, J. and Miller, D. (2007). Does Head Start improve children's life chances? Evidence from a regression discontinuity design. *The Quarterly Journal of Economics*, 122 (1): 159-208.

³ Ibid.

⁴ Anderson, K.H., Foster, J.E., & Frisvold, D.E. (2009). Investing in health: The long-term impact of Head Start on smoking. *Economic Inquiry*, 48 (3), 587-602.

⁵ Herman, A. (2005, Fall). Making a Difference in Head Start Families' Health Care. Dialog Briefs, 9(1): 4.

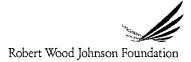
⁶ Garces, E., Thomas, D. and Currie, J. (2002, September). Longer-Term Effects of Head Start. *American Economic Review*, 92 (4): 999-1012

⁷ US Department of Health and Human Services. (2010, January). Head Start Impact Study Final Report – Executive Summary. The control group children were supposed to only consist of children who did not receive Head Start services, but a significant proportion of the control group received Head Start services anyway.

⁸ US Department of Health and Human Services. (2010, January). *Head Start Impact Study Final Report*; U.S. Department of Health and Human Services. Administration for Children and Families. (2004). *Making a difference in the lives of infants and toddlers and their families: The impacts of Early Head Start, Volume I.* Washington, DC.

⁹ Oyemade, U., V. Washington, and D. Gullo. (1989). The Relationship between Head Start Parental Involvement and the Economic and Social Self-Sufficiency of Head Start Families. *Journal of Negro Education*. 58, 1, 13.

- ¹⁰ U.S. Department of Health and Human Services. Administration for Children and Families. (2004). *Making a difference in the lives of infants and toddlers and their families: The impacts of Early Head Start, Volume II: Final technical report appendices.* Washington, DC.
- ¹¹ Ludwig, J. and Phillips, D. (2007). The Benefits and Costs of Head Start. *Social Policy Report*. 21 (3: 4); Meier, J. (2003, June 20). Interim Report. Kindergarten Readiness Study: Head Start Success. Preschool Service Department, San Bernardino County, California.
- ¹² Heckman, J. (2010). Letter submitted to the National Commission on Fiscal Responsibility and Budget Reform.



ISSUE BRIEF SERIES: EXPLORING THE SOCIAL DETERMINANTS OF HEALTH EARLY CHILDHOOD EXPERIENCES AND HEALTH - MARCH 2011

This is one in a series of 10 issue briefs on the social determinants of health. The series began as a product of the Robert Wood Johnson Foundation Commission to Build a Healthier America and continues as a part of the Foundation's Vulnerable Populations portfolio.



Early Childhood Experiences: Laying the Foundation for Health Across a Lifetime

1. Introduction

The earliest years of our lives are crucial in many ways, including how they set us on paths leading toward—or away from—good health. Family income, education, and neighborhood resources and other social and economic factors affect health at every stage of life, but the effects on young children are particularly dramatic. While all parents want the best for their children, not all parents have the same resources to help their children grow up healthy. Parents' education and income levels can create—or limit—their opportunities to provide their children with nurturing and stimulating environments and to adopt healthy behaviors for their children to model. These opportunities and obstacles, along with their health impacts, accumulate over time and can be transmitted across generations as children grow up and become parents themselves.

As noted in an earlier Robert Wood Johnson Foundation report, a large body of evidence now ties experiences in early childhood with health throughout life, particularly in adulthood. Strong evidence also demonstrates that it is possible to turn vicious cycles into paths to health, by intervening early. Although effects of early childhood interventions are greatest for children who are at greatest social and economic disadvantage, children in families of all socioeconomic levels experience benefits from early childhood programs that translate into improved development and health.

The earliest years of our lives set us on paths leading toward — or away from — good health.









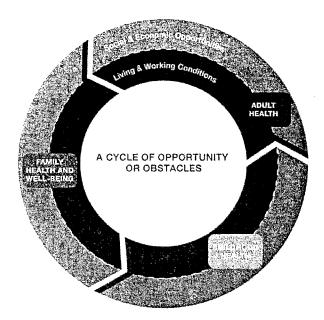


Figure 1. A cycle of opportunity or obstacles. At every stage of our lives, social advantage-or disadvantage-is linked to health. Social and health advantage or disadvantage accumulates over time, creating favorable opportunities or daunting obstacles to health. Opportunities or obstacles play out across individuals' lifetimes and across generations. Intervening early in life can interrupt a vicious cycle, transforming it into a path to health for all children and leading to a healthy and productive adult workforce, Improving early childhood social circumstances is one of the most effective ways for a society to achieve its health potential.

2. How do social and economic conditions early in life shape children's health and development, thus shaping adult health?

CHILDREN'S SOCIAL AND ECONOMIC CONDITIONS HAVE DIRECT EFFECTS ON HEALTH

The association between socioeconomic factors and child health is evident from birth, as children born to mothers with low income and educational levels are more likely to be premature or of low birth weight; these birth outcomes are strong predictors of infant survival and also of health across the entire life course. In addition, it is widely recognized that factors such as nutrition, housing quality, and household and community safety—all linked with family resources—are strongly linked with child health. Research shows that children's nutrition varies with parents' income and education and can have lasting effects on health throughout life; for example, inadequate nutrition is linked with obesity during childhood, which in turn is a strong predictor of adult obesity and its accompanying risks of chronic disease, disability and shortened life. Similarly, children exposed to lead-based paint, most commonly found in lower-income neighborhoods, are more likely to suffer from lead-poisoning that can lead to irreversible neurologic damage.

SOCIAL AND ECONOMIC CONDITIONS ALSO AFFECT CHILDREN'S DEVELOPMENT

A large body of research also has shown that experiences in early childhood affect children's brain, cognitive and behavioral development. Scientific advances in recent decades have demonstrated how social experiences in the first few years of life shape infants' and toddlers' development, creating physiological as well as behavioral foundations—adverse or favorable—for health throughout life. Studies tracking children's development have documented environmental factors and interactions of parents and other caregivers with children while measuring cognitive, behavioral and physical development and in some cases physical health; some of these studies have followed children into adulthood. The results consistently link children's development

By kindergarten or even earlier, children in both lower-income and middle-class families are at a developmental disadvantage compared with children in the most affluent families.











with social and economic advantages and disadvantages in the home environments of young children. Neighborhood conditions—such as safety, presence of parks and playgrounds, and access to fresh produce—can have a significant impact as well.

Parents' social and economic resources can affect the quality and stability of their relationships with their infants, and parent-infant relationships affect children's emotional development and the cognitive stimulation they receive. Maternal depression, which can inhibit mother-infant bonding, is more prevalent among lowincome mothers than among those with higher incomes.² Higher income and/or educational attainment among parents are associated with more stimulation of and response to infants and young children, which are directly linked to brain development.³ The effect of family socioeconomic circumstances on children's language development is evident as early as 18 months; children in families of middle as well as low socioeconomic status are at a disadvantage compared with their betteroff counterparts.⁴ Results of the Early Childhood Longitudinal Study-Kindergarten Cohort (ECLS-K), a national sample of children entering kindergarten, showed that family income is associated with children having the academic and social skills necessary for kindergarten. Compared to children in the highest-income families, children in the lowest-income families were least likely to have the needed skills, but children in middle-class families also performed less well, both socially and academically, than those at the top.5

The links between social and economic conditions and children's development may be explained in part by educational differences in parents' awareness of early childhood developmental needs. Research also shows, however, that higher income generally means lower levels of chronic stress in the home, as well as greater resources to cope with stressors—both of which enable parents to interact more often and more favorably with their children.



Brain, cognitive and behavioral development early in life are strongly linked to an array of important health outcomes later in life, including cardiovascular disease and stroke, hypertension, diabetes. obesity, smoking, drug use and depression.









CHILDREN'S DEVELOPMENT SHAPES SOCIAL AND ECONOMIC WELL-BEING THROUGHOUT LIFE

The first few years of life are crucial in establishing the path—including the opportunities and obstacles along the way—that a child will follow to social and economic well-being in adulthood. Particularly without intervention, the gaps in academic and cognitive skills that are apparent when children enter school generally do not close. In fact, these gaps can grow even larger as disadvantaged children progress more slowly than children from higher-income and better- educated families. ECLS-K study results showed that children at higher social risk had lower reading and math scores in kindergarten and also experienced smaller gains in both these areas by the end of third grade than children with fewer family risk factors. Foor academic performance is linked to subsequently dropping out of high school, lower educational attainment, delinquency and unemployment later in life.

CHILDREN'S DEVELOPMENT SHAPES HEALTH THROUGHOUT LIFE

How a child develops shapes his or her health as an adult. A large body of research has consistently shown that brain, cognitive and behavioral development early in life are strongly linked to an array of important health outcomes later in life, including cardiovascular disease and stroke, hypertension, diabetes, obesity, smoking, drug use and depression—conditions that account for a major portion of preventable morbidity and premature mortality in the United States. The links between children's development and adult health may involve "connecting the dots" through effects on important social outcomes including educational attainment and/or on health-related behaviors, but in some cases they may be more direct. For example, the chronic stress generally associated with families having very limited socioeconomic resources can affect children's bodies in ways that lead to lifelong cognitive limitations and behavioral problems as well as poor physical and mental health. Physiologic effects of chronic stress in early childhood have been linked with depression, anxiety, diabetes, cardiovascular disease and stroke later in life.



3. How strong is the evidence connecting early childhood development programs with health?

There is very strong evidence that social disadvantages experienced in childhood can limit children's opportunities for health throughout life. At the same time, however, there also is strong evidence that it is possible to intervene in early childhood, breaking the vicious cycle (from social disadvantage to health disadvantage to more social disadvantage). Knowledge accumulated over the past 40 years supports the conclusion

"The general question of whether early childhood programs can make a difference has been asked and answered in the affirmative innumerable times."

- Institute of Medicine, 2000









VULNERABLE POPULATIONS PORTFOLIO



that children who participate in high-quality early childhood development (ECD) programs experience a range of immediate and long-term health benefits. These health benefits are in addition to cognitive gains and better academic achievement measured in the short term and lower rates of delinquency and arrests later in adolescence—which themselves have strong health effects. The impact appears universal but is particularly great for socially disadvantaged children, for whom early child care, education and family support programs can act as buffers, providing stability and stimulation to the children and strengthening parents' ability to meet children's developmental needs at home.

THE EVIDENCE LINKING EARLY CHILDHOOD EXPERIENCES WITH HEALTH

Relevant studies can be divided into two major categories: (1) studies of child development and its health consequences, showing that early childhood experiences affect health indirectly by affecting children's mental, behavioral and physical development; and (2) studies of early child development (ECD) interventions, which provide strong evidence that ECD programs: (a) directly affect health and health care and (b) indirectly affect health by affecting social outcomes with well-established health consequences.

1. Studies of early childhood experience and its links with health: Research findings have consistently shown that (a) social experiences in early childhood are linked to brain, cognitive, and behavioral development; and (b) brain, cognitive and behavioral development are in turn strongly linked—often through effects on educational attainment—to an array of important health outcomes, particularly later in life. Examples of adult health outcomes linked to early child development by connecting the dots between these two bodies of knowledge include cardiovascular disease and stroke, hypertension, diabetes, obesity, smoking, drug use and depression; these conditions account for a major portion of preventable morbidity and premature mortality in the United States.

2. Studies of ECD programs (see Table 2):

- a) Findings from observational and experimental studies provide evidence of direct links between particular ECD programs and important health and health care outcomes. The evidence linking ECD programs directly to health outcomes is less extensive than for social outcomes, but it is important to note that the health effects of interventions in early childhood often do not manifest until middle or later adulthood and few evaluations have followed subjects for several decades. Despite this limitation, health outcomes directly linked with ECD programs have been documented, including child injuries, child abuse/maltreatment, depressive symptoms, and health-promoting and health-damaging behaviors such as improved eating habits and hygiene and reduced use of marijuana. Many studies have directly linked particular ECD interventions with optimal use of health services, including health screenings, childhood immunizations, fewer hospital days and fewer emergency room visits.
- b) Experimental and observational studies indirectly link particular ECD interventions with health outcomes by demonstrating their impact on social outcomes that have well-established and important health consequences. These outcomes include, for example, teen pregnancy, cognitive development, school performance, IQ, placement in special education, and/or educational attainment, employment (of the child's mother and of the child in adulthood), income, delinquency and criminal behavior/arrests/incarceration.

Table 1 briefly describes several of the most well known and well evaluated early child development programs in the United States; it also notes estimates of the programs' potential impact in monetary terms. Table 2 summarizes results of studies of these programs, giving an overview of the range of important health and health-related outcomes that have been demonstrated in association with them. Studies of ECD interventions provide strong evidence that these programs (a) directly affect health and health care and (b) indirectly affect health by affecting multiple social outcomes with well-established health consequences.









4. Successful early childhood development programs often have been multi-faceted. Do we know what specific components work?

A report issued by the Institute of Medicine (IOM) in 2000 concluded that "the general question of whether early childhood programs can make a difference has been asked and answered in the affirmative innumerable times." The questions in need of investigation are about the most effective and efficient ways of intervening in early childhood, especially, according to the IOM report, among "children and families who face differential opportunities and vulnerabilities." ⁹

There is wide consensus that key elements of ECD programs include early education and stimulation for preschool children along with support and training for parents and caregivers to improve children's experiences at home and in the community. Some studies have concluded that programs need to be sustained over multiple years to have lasting effects. Highly trained and responsive caregivers, small class sizes with low child-teacher ratios, safe and adequate physical environments and age-appropriate activities focused on enhancing the cognitive and socio-emotional development of the child are often cited as hallmarks of high-quality child development and day care centers.

Some of the well-evaluated ECD programs have provided a range of services to parents and families in addition to education and stimulation for the children. The Perry Preschool and the Chicago Child-Parent Centers programs tried to improve the parent-child relationship and increase parental involvement in the child's education through parental education and participation. The Nurse-Family Partnership and Parents as Teachers provide parent training and supportive guidance with the goal of increasing parents' self-efficacy and life skills. Head Start and the Carolina Abecedarian Project have provided health care, nutrition and social services to participants and their parents. In addition to child care and early education, a range of policies and programmatic interventions can support the healthy development of infants and young children. They include work-based income supplements for the working poor, paid maternity and parental leave, workplace policies promoting and supporting breastfeeding, periodic developmental screening and follow-up services, and environmental protection policies.

5. Investing in early child development to achieve America's health and economic potential

Several national business organizations—including the Committee for Economic Development (CED), PNC Financial Services Group, and the Business Roundtable—as well as Nobel Prize-winning economist James J. Heckman and economists Arthur Rolnick and Rob Grunewald of the Federal Reserve Bank of Minneapolis have called for universal early childhood development programs as a wise financial investment in the future U.S. workforce. ¹⁰

A larger investment in early child development would benefit the overall economy of the United States. Children who participate in ECD programs are more likely to have the necessary skills—such as abstract reasoning, problem solving and communication—to meet the demands of tomorrow's work force. A cost-benefit analysis of the Perry Preschool program estimated that approximately 80 percent of the monetary benefits of the program are benefits to the general public, with the remaining 20 percent accruing to the individual children and/or the adults they will become. Children who participate in ECD programs are more likely to be healthy and have



Major business groups have advocated universal high-quality pre-school as an essential means of achieving a productive — which means both a healthy and educated — future workforce.











higher earnings and are less likely to commit crime and receive public assistance. These benefits translate into tremendous savings for society.

Based on current knowledge, it is reasonable to expect large returns—in human and economic terms—on investment in high-quality early child development programs; at the same time, we must realize that this is a long-term investment, with benefits that may not be measurable for years. If we can, however, take the long view, current knowledge tells us that investing in improving children's development at the beginning of life is probably the most effective strategy for realizing the health potential of all Americans.

Investing in improving children's development at the beginning of life is probably the most effective strategy for realizing the health potential of all Americans.

ABOUT THE ROBERT WOOD JOHNSON FOUNDATION

The Robert Wood Johnson Foundation focuses on the pressing health and health care issues facing our country. As the nation's largest philanthropy devoted exclusively to improving the health and health care of all Americans, the Foundation works with a diverse group of organizations and individuals to identify solutions and achieve comprehensive, meaningful and timely change. For more than 35 years, the Foundation has brought experience, commitment, and a rigorous, balanced approach to the problems that affect the health and health care of those it serves. When it comes to helping Americans lead healthier lives and get the care they need, the Foundation expects to make a difference in your lifetime.

ABOUT THE COMMISSION TO BUILD A HEALTHIER AMERICA

The Robert Wood Johnson Foundation Commission to Build a Healthier America was a national, independent, non-partisan group of leaders that released 10 recommendations to dramatically improve the health for all Americans. www.commissiononhealth.org

ABOUT THIS ISSUE BRIEF SERIES

This issue brief is one in a series of ten on the social determinants of health. The series began as a product of the Robert Wood Johnson Foundation Commission to Build a Healthier America and continues as a part of the Foundation's Vulnerable Populations portfolio. www.rwjf.org/vulnerablepopulations

CREDITS: LEAD AUTHORS

University of California, San Francisco Center on Disparities in Health Paula Braveman, M.D., M.P.H.
Tabashir Sadegh-Nobari, M.P.H.
Susan Egerter, Ph.D.











REFERENCES

- 1. Braveman P and Egerter S for the Robert Wood Johnson Foundation. Overcoming Obstacles to Health: Report From the Robert Wood Johnson Foundation to the Commission to Build a Healthier America. Robert Wood Johnson Foundation, 2008.
- 2. Institute of Medicine, Committee on Integrating the Science of Early Childhood Development and Board on Children, Youth, and Families. From Neurons to Neighborhoods: The Science of Early Childhood Development. Shonkoff JP and Phillips B (eds). Washington, DC: The National Academies Press, 2000.
- 3. Bradley RH and Corwyn RF. "Socioeconomic Status and Child Development." Annual Review of Psychology, 53: 371-399, 2002; Evans GW. "The Environment of Childhood Poverty." The American Psychologist, 59(2): 77-92, 2004; Guo G and Harris KM. "The Mechanisms Mediating the Effects of Poverty on Children's Intellectual Development." Demography, 37(4): 431-447, 2000; Votruba-Drzal E. "Income Changes and Cognitive Stimulation in Young Children's Home Learning Environments."

 Journal of Marriage and Family, 65(2): 341-355, 2003; Yeung WJ, Linver MR and Brooks-Gunn J. "How Money Matters for Young Children's Development: Parental Investment and Family Processes." Child Development, 73(6): 1861-1879, 2002.
- Center on the Developing Child at Harvard University. "A Science-Based Framework for Early Childhood Policy: Using Evidence to Improve Outcomes in Learning, Behavior, and Health for Vulnerable Children." 2007. [Accessed May 14, 2008] Available at http://www.developingchild.harvard.edu.
- 5. Barnett WS, Brown K and Shore R. "The Universal vs. Targeted Debate: Should the United States Have Preschool for All?" *Preschool Policy Matters*, Issue 6. New Brunswick, NJ: National Institute for Early Education Research, 2004.
- 6. Rathbun A and West J. From Kindergarten Through Third Grade: Children's Beginning School Experiences (NCES 2004-007). US Department of Education, National Center for Education Statistics. Washington, DC: US Government Printing Office, 2004.
- 7. Center on the Developing Child at Harvard University. "A Science-Based Framework for Early Childhood Policy: Using Evidence to Improve Outcomes in Learning, Behavior, and Health for Vulnerable Children." 2007. [Accessed May 14, 2008] Available at http://www.developingchild.harvard.edu.
- 8. Karoly LA, Kilburn MR and Cannon JS. Early Childhood Interventions: Proven Results, Future Promise. MG-341. Santa Monica, CA: The RAND Corporation, 2005.
- 9. Institute of Medicine, Committee on Integrating the Science of Early Childhood Development and Board on Children, Youth, and Families. From Neurons to Neighborhoods: The Science of Early Childhood Development. Shonkoff JP and Phillips B (eds). Washington, DC: The National Academies Press, 2000.
- 10. Committee for Economic Development. CED's Early Education Project [Accessed October 4, 2007]. Available at http://www.ced.org/projects/prek.shtml; PNC Financial Services Group. PNC Grow Up Great [Accessed October 4, 2007]. Available at http://www.pncgrowupgreat.com/about.html; The Business Roundtable and Corporate Voices for Working Families. Early Childhood Education: A Call to Action from the Business Community. Why America Needs High-Quality Early Childhood Education, 2003 [Accessed October 4, 2007]. Available at http://www.businessroundtable.org/pdf/901.pdf; Rolnick A and Grunewald R. "Early Childhood Development: Economic Development with a High Public Return." The Region, December, 2003; Heckman JJ and Masterov DV. The Productivity Argument for Investing in Young Children. Early Childhood Research Collaborative Discussion Paper, 2006.
- 11. Rolnick A and Grunewald R. "Early Childhood Development: Economic Development with a High Public Return." *The Region*, December, 2003.

ADDITIONAL RESOURCES

- Hertzman C. "The Biological Embedding of Early Experience and Its Effects on Health in Adulthood." *Annals of the New York Academy of Science*, 896: 85–95, 1999.
- Early Childhood Research Collaborative, http://www.earlychildhoodrc.org/
- National Institute for Early Education Research, http://nieer.org/
- National Scientific Council on the Developing Child, http://www.developingchild.net/









Robert Wood Johnson Foundation

TABLE 1: WHAT ARE THE COMPONENTS OF PROMISING EARLY CHILDHOOD DEVELOPMENT PROGRAMS? AND WHAT DO WE KNOW ABOUT THEIR ECONOMIC IMPACT?

Program	Description	Dollars saved for every dollar spent on early childhood development*
Nurse-Family Partnership	Intensive home-visiting program providing medical and psychosocial service beginning during pregnancy and continuing 2 years postpartum for first-time mothers who are generally young, unmarried and/or of low socioeconomic status.	Participants were followed to age 15: Overall sample: \$2.88 saved for every \$1 spent • Higher-risk sample (both unmarried and low income/education): \$5.70 for every \$1 spent • Lower-risk sample (unmarried or low income/education but generally not both): \$1.26 for every \$1 spent
Early Head Start	Federally funded community-based program for low-income pregnant women and families with children up to age 3. Provides family and child development services using a range of strategies (variable across sites) such as home visiting, parenting education, child care, health care and family support.	Not available
Carolina Abecedarian Project	Center-based program operating from 1972-1985 for infants at high-risk for developmental delays and school failure. Emphasized language development. Pre-school and elementary school components. Health, nutrition and social services.	Participants were followed to age 21: \$3.23 saved for every \$1 spent
High/Scope Perry Preschool Project	Center-based early childhood education for low-income, African-American pre-schoolers with low IQ scores. Conducted in Ypsilanti, MI from 1962-1967. Participatory learning approach. Daily classroom sessions emphasized learning through active and direct child-initiated experiences. Weekly home visits to strengthen the parent-child relationship and increase parent involvement in the child's education.	Participants were followed to age 27: \$5.15 to \$8.74 saved for every \$1 spent, (depending on how crime costs were calculated) Participants were followed to age 40: \$17.07 saved for every \$1 spent
Chicago Child- Parent Center Program	Federally funded, center-based program providing preschool and K-3 education to children living in high-poverty Chicago school neighborhoods eligible for Title I funding. Emphasizes parent participation and a child-centered, individualized approach to social and cognitive development.	Participants were followed to age 21: \$7.14 saved for every \$1 spent
Head Start	Federally funded, comprehensive community-based early child development program focused on improving school readiness among children ages 3 to 5 years in low-income families. Programs vary across sites.	Not available

Monetary costs and savings (discounted to 2003 dollars) were determined by estimating the costs/savings associated with child care, child health, education, labor force participation, use of welfare programs, crime, smoking, substance abuse and childbearing. Costs and savings may be based on outcomes for the child, parent and/or the child's descendant.









^{*} Due to differences in the outcomes measured and in the follow-up periods, the savings-cost ratios should not be used to compare programs.

Source: Karoly LA, Kilburn MR and Cannon JS. Early Childhood Interventions: Proven Results, Future Promise. MG-341. Santa Monica, CA: The RAND Corporation, 2005.



TABLE 2: HOW DO EARLY CHILDHOOD DEVELOPMENT PROGRAMS AFFECT HEALTH? PROGRAM HIGHLIGHTS Impact on child participants during their childhood, adolescence and adulthood*

			Conjet produce that affect boaith	ort boaith		
	-		טטטווים סחורטווופים ווומר מוופי	or neares		
Early childhood development	Health, health behaviors and health services	Children's socio-emotional and/or	Educational outcomes	Adult employment	Adult social services	Crime
programs		cognitive development		and earnings	nse	
Nurse-Family	↓ Child abuse	† Positive social/emotional behaviors				1 Arrests, convictions and
Partnership	↓ Sex partners (teen)	† Achievement test scores				violations of probation
	↓ Alcohol consumption (teen)					(teen)
	↓ Emergency room visits (child)					
	Hospital days (child)					
Early Head Start		† Positive social/emotional behaviors				
		† Achievement test scores				
Carolina	↓ Depressive symptoms [†] (adult)	† IQ scores	↓ Special education placement	† Skilled		
Abecedarian	↓ Teen pregnancy	† Achievement test scores	(child/teen)	employment		
Project	↓ Marijuana use (adult)		Grade retention (child/teen)			
			†Years of completed schooling (adults)			
			Tever attended four-year college (adults)			
High/Scope Perry	↓ Teen pregnancy.	† 1Q scores	↓ Special education placement	↑ Employment	↑ Use of	↓ Arrests (teen/adult)
Preschool Project		† Achievement test scores	(child/teen)	↑ Earnings	social	↓ Arrests for violent crimes
	-		† High school graduation (adult)	1 Income	services	(adults)
						Time in prison/jail (adults)
Chicago Child-	↓ Child abuse	† Social competence	↓ Special education placement			Uelinquency (teen)
Parent Center	↓ Depressive symptoms ^{a,‡} (adult)	† Achievement test scores	(child/teen)			↓ Felony arrests (adults)
Program			J Grade retention (child/teen)			↓ Incarcerations (adults)
			† High school graduation (adult)			
			† Highest grade completed (adult)			
			†Ever attended four-year college (adults)			
Head Start	† Positive health behaviors (child)	† IQ scores	↓ Grade retention (child)			↓ Booked or charged with
	† Immunizations (child)		† High school graduation (white adults)			crime (black adults)
			↑ College attendance (white adults)			

"This does not include impact on the children's parents. "Children" includes teenagers.







^{↑ =} The program was associated with an increase in the specified outcome. ↓ = The program was associated with a decrease in the specified outcome.

^a p-value=0.06, all other results were statistically significant at the p≤0.05 level.

¹From McLaughlin AE, Campbell FA, Pungello EP et al. "Depressive symptoms in young adults: The influences of the early home environment and early educational child care." Child Development, 78(3):746-756, 2007

¹From Reynolds AJ, Temple JA, Ou S et al. "Effects of a school-based, early childhood intervention on adult health and well-being: A 19-year follow-up of low-income families." Archives of Pediatrics & Adolescent Medicine, 16(8):730-739, 2007

161(8):730-739, 2007

Adapted from Tables S.2 and S.3 in Karoly LA, Kilburn MR and Cannon JS. *Early Childhood Interventions: Proven Results, Future Promise.* MG-341. Santa Monica, CA: The RAND Corporation, 2005.